REMARKS

Claims 1-3 and 5-14 remain pending in the application. Applicant amends claim 3 herein to correct a minor typographical error. No new matter is added. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

CLAIM OBJECTIONS

Claim 3 stands objected to for an informality. Applicant amends claim 3 to change "ration" to "ratio". Accordingly, this objection should be moot.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-3 and 5-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over US 2002/0101552 to Yi et al. (Yi) in view of US 6,022,647 to Hirose et al. (Hirose). This rejection is respectfully traversed.

The office action states that the barriers of Hirose correspond to the banks of the present invention.

As clearly stated in previously amended independent claim 1 of the present invention, a color filter of the present invention includes a substrate having a plurality of areas, each area having a colored portion thereon, wherein the plurality of areas each have a light reflecting area in which light entering the colored portion is reflected, and a light transmitting area through which light entering the colored portion passes, wherein the light transmitting area includes a recessed portion for adjusting an optical path

length in the colored portion and wherein the plurality of areas are partitioned by banks formed on the substrate.

In addition, as clearly stated in previously amended independent claim 10 of the present invention, a method for producing a color filter of the present invention includes the steps of: forming a reflection layer on the substrate; forming recessed portions in the light transmitting area on the substrate, and forming banks on the reflection layer, which partition said plurality of areas.

Accordingly, both the color filter and the method for producing the color filter of the present invention include following features (i) to (iii):

(i) the banks formed on the color filter sides;

(ii) the recessed portions formed on the color filter sides; and

(iii) the reflection layer (or the reflecting layer) formed on the color filter sides.

The Examiner asserts in the Office Action that the barriers 2 disclosed in U. S. Patent No. 6,022,647 (hereinafter "Hirose") correspond to the banks of the present invention. However, this is apparently a misunderstanding.

As clearly shown in FIG. 2 and the corresponding description in lines 5 to 6 in column 2: "With reference to FIG. 3A, barriers 2 are formed on a transparent substrate 1". Therefore, the barriers 2 of Hirose are formed on the transparent substrate 1 sides. The transparent substrate 1 corresponds to substrate 201 shown in FIG. 30 of the present invention. Therefore, the barriers 2 provided on the transparent substrate 1 sides completely differ from the claimed banks of the present invention (for example, banks 3 provided on the color filter 11 sides). Thus, Hirose does not disclose or

suggest feature (i) of the present invention (i.e., the banks formed on the color filter sides).

Furthermore, if a reflection layer is provided into the liquid crystal device of Hirose, the reflection layer normally should be provided on the side of the counter substrate 11 shown in FIG. 2 of Hirose. In this case, light coming from the top to the bottom in FIG. 2 will be colored by passing through one of the color filters 5, will be reflected by the reflection layer provided on the counter substrate 11 sides, will again pass through one of the color filters 5, and then will be viewed by a viewer. At this time, since banks (or barriers) are not provided on the reflection layer, there is a possibility that the light reflected by the reflection layer proceeds towards an adjacent color filter 5 having a different color from that of the color filter 5 throughwhich the light initially passed. In this case, color mixture of the light will occur and thus, deterioration in the visibility of the liquid crystal device will occur.

In addition, US Patent Application No. 2002/0101552 (hereinafter "Yi") likewise does not disclose or suggest banks formed on the color filter sides. Therefore, the color filter substrate disclosed in Yi also has the possibility of color mixture in the light and thus deterioration in visibility.

On the other hand, the present invention includes the above-mentioned unique feature (i) which is not disclosed or suggested in Hirose or Yi, and can obtain a unique benefit in that the possibility of color mixture in the light can be effectively eliminated by the banks formed on the color filter sides.

Moreover, it should be noted that the above-mentioned difference is only one of the differences between the claimed invention and the references of record. For example, there are also at least the differences shown below:

(a) Neither Hirose nor Yi disclose disposing recessed portions on the color filter sides while the present invention includes recessed portions formed on the color filter sides (i.e., the feature (ii));

(b) Yi does not disclose disposing a reflection layer (or a reflecting layer) formed on the color filter sides while the present invention includes the reflection layer (or the reflecting layer) formed on the color filter sides (i.e., the feature (ii)). As shown in FIG. 2 of Yi, Yi discloses forming a reflective plate (i.e., reflective layer) 36 on a liquid crystal layer sides; and

(c) Neither Hirose nor Yi disclose disposing a color filter on a counter substrate sides while the present invention includes the color filter on the counter substrate sides.

As explained above, neither Hirose nor Yi includes the above-mentioned features (ii) and (iii). That is, as shown in FIG. 2 of Hirose, Hirose does not disclose disposing the recessed portions, and each of substrate 1 and counter substrate 11 has a flat shape. Furthermore, as shown in FIG. 2 of Yi, Yi discloses a transmissive hole 31 (a recessed portion) and the reflective plate (reflective layer) 36 on the liquid crystal layer sides but *not* on the color filter sides. On the other hand, the present invention discloses forming both the recessed portions and the reflection layer (or the reflecting layer) on the color filter sides.

Furthermore, as explained in the aforementioned explanation, forming the recessed portions and the reflection layer (or the reflecting layer) on the liquid crystal layer sides has the possibility of allowing color mixture of the light and thus deterioration in visibility.

Accordingly, independent claims 1 and 10 of the present invention are novel and non-obvious in view of Hirose and Yi since each of independent claims 1 and 10 includes the unique features (i) to (iii) which are not disclosed or suggested in the prior art and obtain a unique benefit based on the unique features (i) to (iii).

In addition, dependent claims 2, 3 and 5 to 9 should be allowable due to their dependency on claim 1. In addition, dependent claims 11 to 14 should be allowable due to their dependency on claim 10.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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